

- A<sub>1</sub>
1. (Amended) A method comprising:  
receiving vertex data corresponding to first, second and third vertices of a triangle;  
generating region bits representing a location each of the first, second and third vertices with respect to a tile being rendered;  
generating coordinate data representing an initial rasterization starting point estimate based in part on the region bits; and  
providing the initial rasterization starting point estimate to a rasterizer.
  2. (Amended) The method of Claim 1, further comprising:  
generating an orientation bit representing an orientation of a line connecting the first and second vertices with respect to a line connecting the first and third vertices.

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4. (Amended) A circuit comprising:  
a region calculation circuit configured to receive sorted vertex data corresponding to vertices of a triangle, the region calculation circuit configured to generate region bits representing a position of the sorted vertices with respect to a tile being rendered; and  
an initial rasterization starting point estimation circuit operative to generate an initial rasterization starting point estimate coordinates for scanning of the triangle in response to the region bits, the initial rasterization starting point estimation circuit including a circuit for discarding a triangle when the corresponding vertex data lies outside a boundary defined by the region bits.

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7. (New) The method of Claim 1, wherein the step of generating the initial rasterization starting point further comprises discarding triangles when the vertices correspond to locations outside the tile represented by the region bits.
  8. (New) The method of Claim 3, wherein the initial rasterization starting point is defined by the intersection of the sorted vertices and the position represented by the region bits.

9. (New) The circuit of Claim 4, further comprising an interception calculation circuit operative to provide a coordinate dependent initial rasterization starting point in response to the region bits and the vertex data.
10. (New) The circuit of Claim 4, wherein the initial rasterization starting point estimation circuit further includes a trivial accept circuit operative to provide the initial rasterization starting point in response to the region bits.
11. (New) The circuit of Claim 10, wherein the trivial accept circuit further comprises a logic gate coupled to a corresponding subset of the region bits.
12. (New) The circuit of Claim 11, wherein the logic gate is an AND gate.
13. (New) The circuit of Claim 4, wherein the region bits define the top edge, bottom edge, right edge and left edge of a current tile being rendered.
14. (New) A circuit, comprising:  
a sorting circuit operative to provide sorted vertex data in response to input data corresponding to vertices of a primitive, the vertex data being sorted in a coordinate-dependent fashion, the vertex data including x-coordinate and y-coordinate position information;  
a region calculation circuit, coupled to the sorting circuit, operative to generate region bits representing a position of the primitive with respect to a tile being rendered in response to the sorted vertex data; and  
an initial rasterization starting point circuit, coupled to the region calculation circuit, operative to generate an initial rasterization starting point coordinate in response to the region bits, the initial rasterization starting point circuit including a discard circuit operative to discard the vertex data of a primitive that lies outside the boundary defined by the region bits.
15. (New) The circuit of Claim 14, wherein the initial rasterization starting point circuit further includes a trivial accept circuit operative to provide the initial rasterization starting point in response to the region bits.

B 16. (New) The circuit of Claim 15, wherein the vertex data is sorted in y-coordinate fashion and the trivial accept circuit provides the x-coordinate and sorted y-coordinate rasterization starting point of a non-discarded primitive.

17. (New) The circuit of Claim 14, wherein the vertex data includes x-coordinate position data and y-coordinate position data and further including an intercept calculation circuit operative to generate the initial rasterization starting point when the x-coordinate position data or the y-coordinate position data intercepts the boundary defined by the region bits.

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